Serial No. 10/607,767 Docket No. 4296-164 US

Amendments to the Claims:

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Listing of Claims:

1. (Currently Amended) A method for the production of acrylic acid which comprises the steps of:

- (a) supplying one or more gas components selected from the group consisting of propylene, propane and acrolein to a reactor for catalytic gas phase oxidation,
- (a \underline{b}) a step for obtaining an acrylic acid-containing gas by catalytic gas phase oxidation,
- (c) introducing said acrylic-acid containing gas and supplying an aqueous absorbing solvent into an acrylic acid absorbing column, whereby an aqueous acrylic acid-containing solution is absorbed onto said acrylic acid absorbing column
- (b <u>d</u>) a step for obtaining an <u>said</u> aqueous acrylic acid-containing solution <u>absorbed onto said acrylic acid absorbing column</u> by absorbing the acrylic acid-containing gas with an aqueous absorbing solvent,
- (e e) a step for obtaining crude acrylic acid by dehydration and/or removing a low boiling substance from said aqueous acrylic acid-containing solution,
- (d f) a-step-for obtaining acrylic acid and a high boiling substance-containing solution by removing the high boiling substance from said crude acrylic acid, and subsequently
- (e g) a step for recovering acrylic acid by thermally decomposing an acrylic acid oligomer contained in said high boiling substance-containing solution,

which method is characterized by performing at least either of (i) a step for introducing a polymerization inhibitor to a distillation column at any point except at a stage other than the stage for supplying a raw material to the distillation and the stage for supplying a reflux of said distilling column or (ii) a step for supplying the acrylic acid recovered by thermally decomposing said acrylic acid oligomer to said step (e)obtaining crude acrylic acid by dehydration.

- 2. (Original) A method according to claim 1, which further comprises performing the following step (iii) and/or (iv);
 - (iii) a step for supplying a polymerization inhibitor containing solution together

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with an acrylic acid containing solution with an atomizing injecting means,

(iv) a step for thermally decomposing the oligomer contained in said high boiling substance-containing solution thereby lowering the concentration of maleic acid contained in the recovered acrylic acid solution to a level of not higher than 5 wt. %.

- 3. (Currently Amended) A method according to claim 1, which further comprises the steps of;
- (f <u>h</u>) a-step for esterifying the acrylic acid obtained in said step (e g) thereby producing an acrylic ester, or
- (g i) a step for further purifying the acrylic acid obtained in said step (e g) thereby obtaining acrylic acid of high purity.
- 4. (Currently Amended) A method according to claim 1, wherein <u>further comprising the step of cooling the aqueous acrylic acid-containing solution in a tank and/or a cooler is installed</u> between said steps (b) (g i) and the subsequent step is carried out therewith.
- 5. (Currently Amended) A method for the production of a polyacrylic acid or (salt) thereof characterized by producing said polyacrylic acid (salt) by using the acrylic acid of high purity obtained at the step (g i) set forth in claim 3 in a polymerization process.
- 6. (Currently Amended) A method according to claim 5, wherein further comprising the step of cooling the aqueous acrylic acid-containing solution in a tank and/or a cooler is installed between said step (g i) and a step for producing the polyacrylic acid (salt).
- 7. (Currently Amended) A method for the production of a polyacrylic acid or (salt) thereof, characterized by producing said polyacrylic acid (salt) by using the acrylic acid of high purity obtained at the step (g i) set forth in claim 4 in a polymerization process.